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Before the
FEDERAL COMMUNICATIONS COMMISSION
 Washington, DC 20554

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In the Matter of

Establishment of Rules and Policies
 for the Digital Audio Radio Satellite
 Service in the 2310-2360 MHz
 Frequency Band

)
) IB Docket No. 95-91
) GEN Docket No. 90-357
) RM No. 8610
) PP-24
) PP-86
) PP-87

JAN - 9 1998

FEDERAL COMMUNICATIONS COMMISSION
 OFFICE OF THE SECRETARY

**RESPONSE TO SUPPLEMENTAL COMMENTS
 OF SATELLITE DARS LICENSEES BY THE
 NATIONAL ASSOCIATION OF BROADCASTERS**

The National Association of Broadcasters ("NAB")¹ hereby submits its response to the supplemental comments filed in this proceeding by American Mobile Radio Corporation ("AMRC") and CD Radio. Both AMRC and CD Radio leave many questions unanswered in their supplemental filings. CD Radio appears to have made a good faith effort to provide useful information. The few sentences of information that AMRC provided in its one-page supplemental filing, however, add very little to the record in this proceeding. In fact, all that can be learned from AMRC's filing is that AMRC plans to create a *terrestrial network* of high-powered 2.3 GHz broadcast transmitters to serve most of the U.S. population, and it plans to supplement this terrestrial service with its satellite signals in less populated areas. The Commission must reject AMRC's attempt to turn its satellite broadcasting license into one for a terrestrial network. It must establish rules for terrestrial repeaters in the Satellite Digital Audio Radio Service

¹ NAB is a nonprofit incorporated association of broadcast stations and networks. NAB serves and represents the American Broadcasting industry.

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(“SDARS”) which will ensure that these devices are used solely to fill in coverage gaps within the service areas of the SDARS systems.

It is evident from the supplemental comments of AMRC that it plans to implement a *terrestrial* digital audio radio system, and to *supplement its terrestrial service with its satellite signal*. This is a perversion of what the Commission intended when it allocated SDARS spectrum. In its supplemental comments, AMRC indicates that it wants to deploy approximately 1,000 terrestrial repeaters in mostly urban areas across the country, each with an effective radiated power of up to 10 kW.² This extensive terrestrial network would, by itself, cover most of the U.S. population *without the need for end users to receive any satellite signal*. This simply would be a terrestrial service that is merely supplemented by a satellite signal in rural areas. The Commission should reject AMRC’s proffered plan and adopt technical standards and operating requirements for SDARS terrestrial repeaters that will ensure that these repeaters are used only to fill in small holes in satellite coverage.

The Commission has well-established rules regarding the use of repeaters and radio broadcast signals.³ These rules require that each radio broadcast repeater be used only to retransmit an incoming radio broadcast signal without altering any characteristics of the incoming signal other than its amplitude and, in some cases, its frequency.⁴ Broadcast repeaters are not permitted to change the bandwidth of the incoming signal. Nor are they permitted to change the content of the incoming signal.⁵ If the incoming signal contains a supplemental subcarrier, such as

² See AMRC supplemental comments.

³ See 47 CFR Part 74, Subpart L.

⁴ See 47 CFR Section 74.1201(a) and (f).

⁵ There are a few very limited exceptions to this rule. Specifically, 47 CFR Section 74.1231(f) and (g) permit broadcast terrestrial repeaters to transmit locally originated announcements concerning emergency warnings of imminent danger and requests for, or acknowledgements of, financial support. Also, 47 CFR Section 74.1283(c)

those commonly used at 67 kHz and 92 kHz in the FM baseband to provide services like foreign language programming to niche audiences, then this subcarrier must also be retransmitted.

Conversely, if a subcarrier is not included in the incoming signal then one may not be added at the repeater. The purpose of these and other Part 74 rule provisions is to ensure that broadcast repeaters are not used for any purpose other than the retransmission of the complete signal from the primary station.

The Commission here should ensure that SDARS terrestrial repeaters, like those employed in the terrestrial radio broadcast service, are used only to retransmit the complete signal from the primary station. For these satellite systems, this means that their terrestrial repeaters must be limited to the retransmission of the complete satellite signals. If an SDARS system is carrying 50 broadcast channels, then all 50 channels must be retransmitted by its terrestrial repeaters, not just half of these signals as AMRC proposes to do.⁶ If the SDARS system is transmitting any ancillary data or control signals then these, too, must be retransmitted by all of its terrestrial repeaters. And the insertion of additional programming channels, ancillary data, or control signals at SDARS terrestrial repeater sites must be prohibited.

Finally, a maximum effective radiated power limit of *no higher than 1 kW* must be established for SDARS terrestrial repeaters to ensure that these devices are used solely to fill in coverage in very limited areas where the satellite signal cannot be received. Permitting excessively high ERPs from these transmitters, such as those proposed in the supplemental comments of AMRC, would allow SDARS licensees to transform their licenses into essentially terrestrial ones which rely on satellite signals to fill in holes in terrestrial coverage.

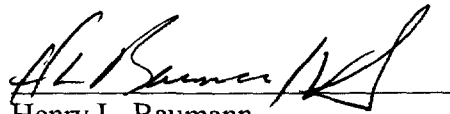
permits a broadcast terrestrial repeater to either frequency shift or amplitude modulate the incoming carrier signal in order to transmit its call sign in International Morse Code at least once each hour.

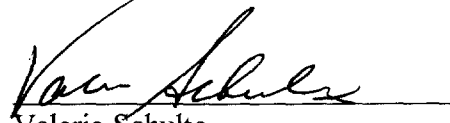
⁶ See May 16, 1997, Amendment to SDARS Application filed by AMRC, pp. A-2 – A-3.

Only by adopting rules that specifically spell out the requirements outlined above can the Commission ensure that SDARS terrestrial repeaters are used exclusively as they are intended – as a means to fill in holes in the coverage area of an SDARS system.

Respectfully submitted,

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